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location between said first and second surface, the fluid slot tapering from said internal width to the width W1 at said opening in said first surface.

REMARKS

The Examiner is thanked for the careful review of the application as set out in the outstanding office action. Reconsideration of the application is respectfully requested.

A marked up version showing the changes made to the application is attached.

The telephonic election of Claims 15-20 for prosecution in this case is affirmed.

The title has been amended, in view of the election of Claims 15-20.

Claims 15-20 stand as rejected under 35 USC 102(b) as being "obvious" by Murthy et al. ("Murthy"). Applicants note that the rejection language is inconsistent, in that Section 102(b) deals with anticipation issues, and Section 103 deals with obviousness issues. Applicants assume for purposes of this response that, since the action quotes Section 102(b), and has a caption "Claim Rejections - 35 USC § 102," the rejection is for anticipation, not obviousness.

The rejection is respectfully traversed, on the ground that a prima facie case of anticipation has not been established, and the applied reference does not disclose each element of the claimed invention.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The elements must be arranged as required by the claim. MPEP 2131.

Murthy does not describe each element as arranged in Claim 15. For example, Murthy does not describe a fluid feed slot extending from a second surface of the substrate to the first surface, the "fluid slot formed by deep reactive ion etching followed by anisotropic wet etching." Applicants respectfully disagree with the Examiner's statement that Murthy discloses "said fluid slot

formed by deep reactive ion etching (column 7, line 32) followed by anisotropic wet etching (column 6, line 13-42)... ("An important feature of the process of the invention is the partial anisotropic etch of the silicon substrate 2 as illustrated in FIG. 1D. In this step, one or more elongate ink feed slots 20 are anisotropically etched in the silicon substrate 2 from the first surface 4 until a portion of the substrate between the etched feed slots and the dielectric layer 10 remains...: Murthy at 6:30-36. "Prior to completing the etch of the one or more feed slots 20, the device side of the substrate is completed... Murthy at 6:59-60. "After depositing, locating and patterning the resistive, conductive, insulative and protective materials on the second substrate, the anisotropic etch of the feed slots 20 up to the dielectric layer 10 on the second surface is completed as illustrated in FIG. 1F." Murthy at 7:21-24. As for the reference to reactive ion etching, ("The dielectric layer 10 and protective layers 26 may be removed by reactive ion etching (RIE), abrasion, laser ablation, air blast, water blast or any other well known technique." Murthy at 7:31-34) this does not teach or suggest the "fluid slot formed by deep reactive ion etching followed by anisotropic wet etching."

Similar considerations apply to the ink jet printing device recited in Claim 18.

The Examiner further asserts that Murthy at 8:45-50 describes the limitations added by Claims 16 and 19, and Claims 19 and 20. Applicants respectfully disagree. Murthy at 8:45-50 does not refer to feed slots: "Next, a plurality of alignment holes 38, preferably at least about three or more, are drilled at spatially separate locations in the silicon wafer substrate 34 (FIG. 3A) using a laser beam." Murthy at 8:29-33. "The laser drilled holes 38 preferably have an entry 46 on the first surface 4 of the silicon substrate of from about 5 to about 100 microns, preferably about 50 microns and an exit 48 on the second surface 6 of the silicon substrate 2 having a diameter of from about 5 to about 50 microns, preferably about 25 microns." Murthy at 8:45-50.

Because Murthy does not describe each element of Claims 15-20, the rejection under Section 102 should be withdrawn.

New Claims

Claim 21 depends from Claim 15, and further recites that the fluid feed slot has a diamond shape, further distinguishing from the feed slot of Murthy.

This claim is supported by applicants' specification, see, e.g. FIG. 7. Claim 22 depends from Claim 15, and further recites that the fluid feed slot has a width at a location intermediate the first surface and the second surface which is larger than width W1. This claim is also supported by applicants' specification, e.g. at FIG. 7. Claim 23 depends from Claim 15, and further recites that a longitudinal extent of the fluid feed slot is aligned with a <100> plane of the substrate. This claim is also supported by applicants specification, e.g. at paragraph 20, and does not constitute new matter.

Claims 24-26 depend from Claim 18, and add limitations similar to those of Claims 21-23.

New Claim 27 is similar to Claim 15, but adds the limitation that the fluid slot tapers from the opening at the second surface to an internal width that is larger than the width W2 at an intermediate location between the first and second surface, the fluid slot tapering from the internal width to the width W1 at the opening in the first surface. This claim is also supported by applicants' specification, e.g. at FIG. 7.

These new claims should be allowed.

CONCLUSION

The outstanding rejection has been addressed and the application is in condition for allowance. Such favorable reconsideration is solicited.

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Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE TITLE

Amend the title to the following:

[METHOD OF MAKING AN INK JET PRINthead HAVING A NARROW
INK CHANNEL] FLUID EJECTING DEVICE WITH FLUID FEED SLOT

IN THE SPECIFICATION

Amend paragraphs 0008-0009 as follows:

[0008] FIG. 1 is schematic perspective view of a print cartridge that can incorporate an embodiment of an ink jet printhead in accordance with the invention.

[0009] FIG. 2 is a schematic transverse cross-sectional view of an embodiment of a printhead in accordance with the invention.